Institutional Effectiveness 2022-2023

Program: Wildlife and Fisheries Science BS College and Department: College of Arts & Sciences Contact: Chris Brown Mission:

Academic Year	Tennessee Tech	п	National
	WFS		Average
2018-2019	76.0	36	74.0
2019-2020	75.0	10	74.0
2020-2021	73.2	15	74.0
2021-2022	74.1	39	73.3
2022-2023	73.8	34	73.3

Table 1. Average score for Wildlife and Fisheries Science (WFS) majors, along with sample size (n), on the California Oritical Thinking Skills Test during the past 5 academic years.

Use of Results to Improve Outcomes:

We are pleased that our Wildlife and Fisheries Science students generally have scored above the national average with respect to critical thinking, but clearly there is room for improvement. The Department of Biology has created a committee this academic year to examine our introductory (General Biology) courses, concurrent with the university's reevaluation of its General Education program. Inclusion of more critical thinking/active learning components in these courses could further improve our WFS students' critical thinking skills.

OUTCOME 2: EXPERIENTIAL LEARNING

Define Outcome:

Students majoring in WFS will gain real-world experience in their chosen fields by participating in some type of experiential learning (coops, internships, research), with 10% of our students involved in some type of experiential learning during their time at TTU.

Assessment Methods:

On the department senior questionnaire, students are asked to indicate whether they have had any type of experiential learning: coops, internships, undergraduate research, job shadowing, or other related activities.

Student involvement in internships is traced via enrollment in WFS4900, Internship in Biology.

Undergraduate research activity is tracked via Faculty annual reports, where faculty are asked to include a list of undergraduates who have worked in their research lab over the preceding year.

Oriteria for Success (Thresholds for Assessment Methods): Combining data from all three assessment methods, a minimum of 10% of graduating seniors Results and Analysis:

Participation in internships and co-op assignments has traditionally been examined using our

department will continue to seek ways of improving this response rate, including the possibility of incorporating the survey into a required course.

OUTCOME 3: Understanding Scientific Reasoning

Define Outcome:

Students majoring in WFS will demonstrate an understanding of scientific reasoning by having 80% (or more) of students obtaining a perfect score on the departmental Scientific Method Questionnaire.

Assessment Methods:

Scientific Method Questionnaire, developed internally by the Department of Biology. This is administered to graduating seniors either during BIOL 3920 (Biological Communication Skills) or at the time they take the ACAT major field exam.

Oriteria for Success (Thresholds for Assessment Methods):

OUTCOME 5: DIVERSITY IN WFS

Define Outcome:

The Department of Biology will seek diversity amongst students majoring in Biology by having a minimum of 10% of WFS majors be from underrepresented groups as determined by department enrollment information.

Assessment Methods:

Percentage of students in underrepresented groups (e.g., minority students) will be obtained from enrollment data provided by the Office of Institutional Assessment, Research, and Effectiveness (IARE).

Oriteria for Success (Thresholds for Assessment Methods):

A minimum of 15% of students majoring in WFS will come from underrepresented groups, as determined by data from IARE.

Results and Analysis: For the purposes of this Outcome, minority students were defined using the sum of the percentages of all non-

Appendix 1: Ourriculum Map, Wildlife and Fisheries Science

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